

Appl. No. 10/531,268
Amdt. dated April 18, 2007
Reply to Office action of Jan. 18, 2007

REMARKS

Claims 26-27 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The examiner states that the claims are improper in form. Applicant has rewritten claims 26 and 27 to clearly claim the inventive subject matter. Withdrawal of the rejection is respectfully requested.

Reconsideration of the rejection of claim 10 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,694,950 to Djordjevic is respectfully requested.

Claim 10 is directed to a high-pressure fuel pump (10) for a fuel injection system (56), having

a housing (17, 47),

a piston (13) guided in a cylindrical bore (15) of the housing (17),

a base plate (27) in contact with a polygonal ring (23) on a drive shaft of the pump (10),

said piston (13) having a first end guided at a first end of said cylindrical bore (15),

said piston (13) having a free second end guided within a second end of said cylindrical bore (15),

a low-pressure inlet (45) disposed at the second end of the cylindrical bore (15),

a supply chamber (31) in which the fuel is compressed by the free end of the piston (13),

an intake valve (35) disposed between the supply chamber (31) and the low-pressure inlet (45),

a valve member of the intake valve (35) being braced against an end of the piston (13) via a compression spring (43) disposed in the supply chamber (31), and

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a high-pressure outlet,

wherein the valve member of the intake valve (35) is embodied as a ball (39).

Djordjevic appears to disclose the elements of claim 10 including low-pressure inlet 64, intake valve having valve member 68 embodied as a ball, compression spring, and supply chamber. However, Djordjevic lacks the structural relationship of the elements recited by claim 10. In particular, Djordjevic lacks a low-pressure inlet disposed at the second end of the cylindrical bore, a supply chamber in which the fuel is compressed by the free end of the piston, and a valve member of the intake valve being braced against an end of the piston via a compression spring disposed in the supply chamber (31). Therefore Djordjevic does not anticipate claim 10, and withdrawal of the rejection is respectfully requested.

Reconsideration of the rejection of claim 10 under 35 U.S.C. 103(a) as being unpatentable over WO 03/048564 is respectfully requested.

The examiner references element (38) as an intake valve, which Applicant has not recognized in the reference. However, WO 03/048564 appears to disclose the elements of claim 10. However, WO 03/048564 lacks the structural relationship of the elements recited by claim 10. In particular, WO 03/048564 lacks a low-pressure inlet disposed at the second end of the cylindrical bore, a supply chamber in which the fuel is compressed by the free end of the piston, and a valve member of the intake valve being braced against an end of the piston via a compression spring disposed in the supply chamber (31). Therefore WO 03/048564 does not suggest or make obvious the structural arrangement of the invention according to claim 10, and withdrawal of the rejection is respectfully requested.

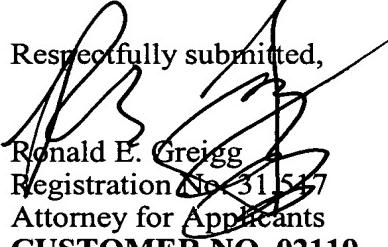
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Reconsideration of the rejection of claims 11-27 under 35 U.S.C. 103(a) as being unpatentable over Djordjevic or WO 03/048564 is respectfully requested.

Neither reference shows or suggests the features of the spring plate 41 between the spring 43 and ball 39 (cl. 11), the ball diameter being smaller than the spring diameter (cl. 12-13), a screw 47 closing off bore 15 having the sealing seat 37 in the end of the screw facing the supply chamber 31 (cl. 20-24), or the annular chamber 51 defined by a reduced-diameter region 50 of the screw 47 (cl. 24-25). These features of the invention are not obvious matters of design choice. Furthermore claims 11-27 depend from claim 10, which is distinguished over the references as explained above. Therefore, withdrawal of the rejection and allowance of all the claims is respectfully requested.

The above amendments are being made to place the application in better condition for examination.

Entry of the amendment is respectfully solicited.

Respectfully submitted,

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